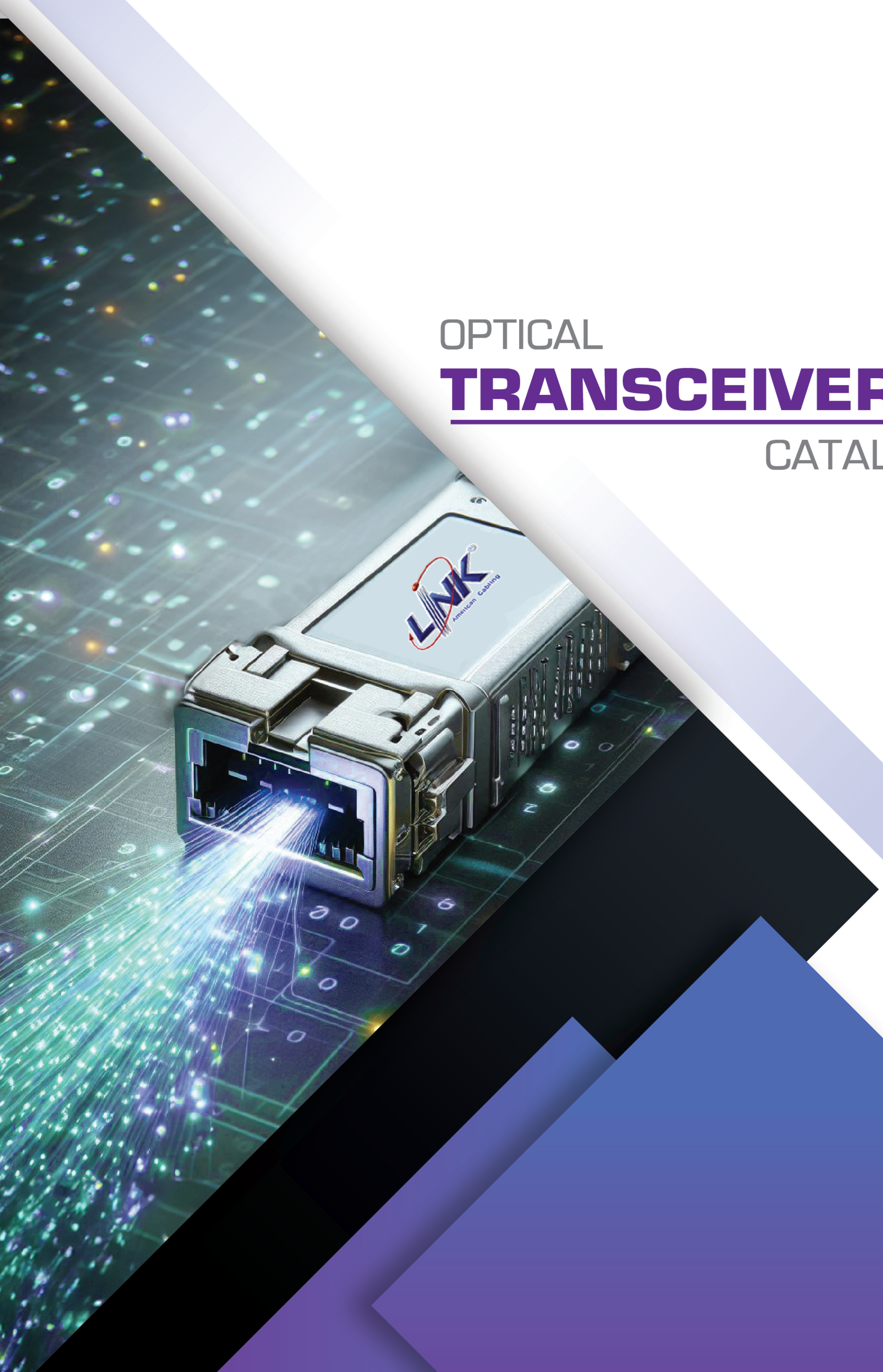
LINK American Cabling

AMERICAN STANDARD



OPTICAL TRANSCEIVERS for All

CATALOG 2025

V 2.0

TRANSCEIVER CLINIC FOR ALL

OPTICAL TRANSCEIVER

An Optical Transceiver is a crucial component in modern communication networks, designed to support high-speed data transmission and long-distance communication. It enables the efficient connection of networking devices, ensuring optimal performance without limitations in speed or distance. These transceivers are also instrumental in linking communication devices within data centers, facilitating the seamless and fast exchange of vast amounts of data.
The Optical Transceiver originated from a connector known as Small Form-factor Pluggable (SFP). Over time, the SFP evolved to accommodate faster data transmission, leading to the development of advanced models under the same SFP format, such as SFP+, SFP28, QSFP, QSFP56, and QSFP+.

LINK TRANSCEIVER CLINIC for ALL

The LINK Transceiver Clinic for ALL is designed to assist computer system designers and network engineers in maximizing the efficiency of Optical Transceivers. This initiative supports the use of these transceivers across all models, brands, speeds, and distances of communication devices. Should any issues arise during use, experts are readily available to provide timely advice and solutions.
In today's world of E-Commerce, major technology companies are heavily investing in Data Centers across Asia. LINK Transceiver Clinic for ALL, located in Thailand, serves as a hub, offering services to clients throughout the Asian region. It is a valuable resource for connectivity technology developers, computer engineers, and network engineers, helping them overcome challenges and inefciencies encountered in their work.

STRATEGY of LINK TRANSCEIVER CLINIC for ALL

- ALL COMPATIBLE: Compatible with all brands of communication equipment, all speeds, and any distance.
- 3 DAYS DELIVERY: Optical Transceiver products are delivered within three business days, while XFP, 50G, 100G, 200G, 400G, 800G, DAC and AOC products are delivered within three weeks. Customers can borrow products for testing for one week, with the possibility of extending the testing period up to three weeks.
- 3 YEARS WARRANTY: LINK Optical Transceiver products come with a full three-year warranty. If any issues occur during usage, or if a product is found to be defective, it can be replaced immediately within the warranty period.

LINK OPTICAL TRANSCEIVER for All

1.25G SFP SX/LX

- Up to 1.25Gbps data rate, IEEE802.3ab Gigabit Ethernet standard
- 850nm VCSEL Laser and PIN photo detector
- 1310nm FP Laser and PIN photo detector
- Multi-Source Agreement (MSA) and SFF-8472

1.25G SFP RJ45/GIGABIT

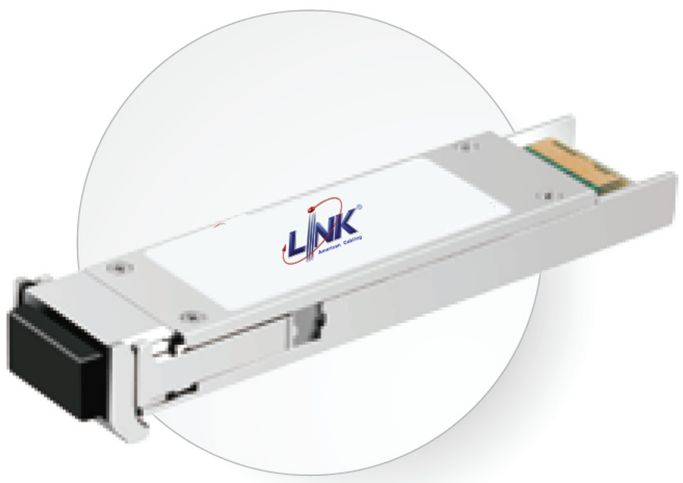
- Up to 1Gbps data link
- IEEE802.3ab Gigabit Ethernet standard
- Link lengths up to 100 meters
- Compact RJ45 connector assembly

10G SFP+ SR/LR

- Up to 10Gbps data rate
- 850nm VCSEL Laser and PIN photo detector
- 1310nm Uncooled DFB Laser and PIN photo detector
- IEEE802.3ae 10Gigabit Ethernet standard

10G SFP+ BiDi

- Up to 10Gbps data rate, IEEE 802.3ae 10Gigabit Ethernet standard
- Compliant with SFP+ MSA and SFF-8472 with single LC receptacle
- The distance can reach up to 10km, 20km, 40km, 60km or 80km



10G XFP Duplex

- Up to 10Gbps data rate, IEEE 802.3ae 10Gigabit Ethernet standard
- Hot-pluggable XFP transceiver modules

LINK OPTICAL TRANSCEIVER for All

25G SFP28 SR/LR

- Up to 25Gbps data rate
- Maximum link length of 70m on OM3 MMF or 100m on OM4 MMF for SR and 10km on OS2 SMF for LR
- Compliant with SFP28 MSA and IEEE 802.3

25G SFP28 BiDi

- Up to 25Gbps data rate
- Full-duplex transceiver integrated module in SFP28 hot-pluggable
- Compliant with SFP28 MSA and 25G Ethernet with single LC receptacle
- The distance can reach up to 10km, 20km, or 40km

40G QSFP+ SR4/LR4

- Up to 40Gbps data rate, IEEE 802.3ba 40Gigabit Ethernet standard
- High Reliability 850nm VCSEL technology for SR4, MTP/MPO optical connector
- 4 Parallel lanes design for LR4, duplex LC receptacle optical interface
- Maximum link length of 100m on OM3 MMF or 150m on OM4 MMF for SR4 and 10km on OS2 SMF for LR4

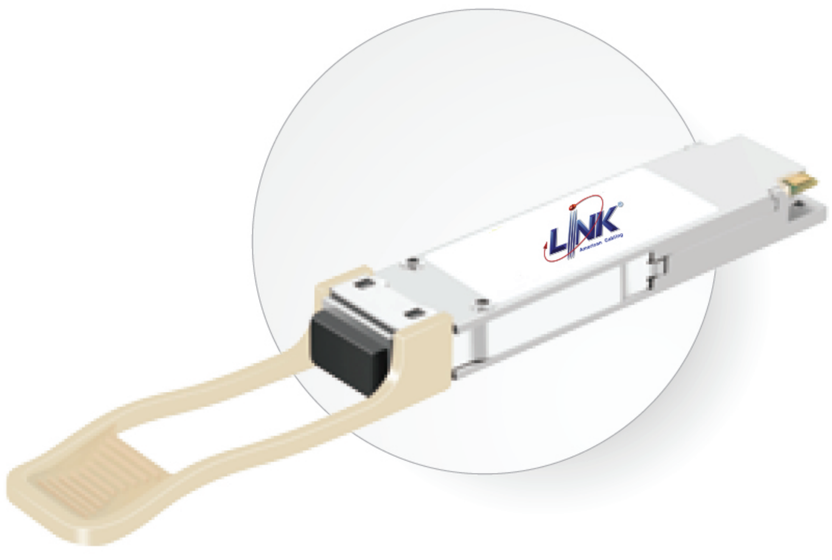
40G QSFP+ ER4

- Up to 40Gbps data rate, IEEE 802.3ba 40Gigabit Ethernet standard
- 4x10Gbps CWDM transmitter for ER4
- Duplex LC receptacle optical interface
- Maximum link length of 40km on OS2 SMF

50G SFP56 SR4/LR4

- Up to 50Gbps data rate, IEEE 802.3cd 50Gigabit Ethernet standard
- Maximum link length of 70m on OM3 MMF or 100m on OM4 MMF for SR4 and 10km on OS2 SMF for LR4
- SFP56 MSA

LINK OPTICAL TRANSCEIVER for All



100G QSFP28 SR4

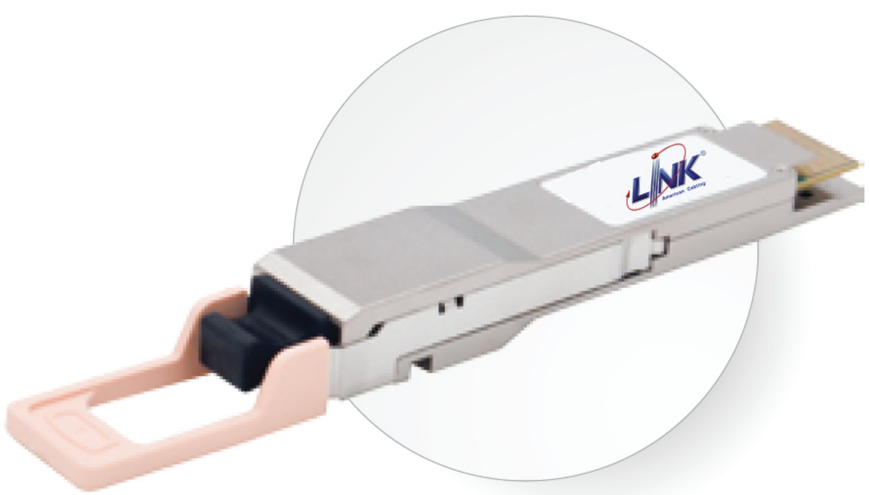
- Up to 100Gbps data rate
- 4 channels 850nm VCSEL array and 4 channels PIN photo-detector array
- Maximum link length of 70m on OM3 MMF or 100m on OM4 MMF for SR4
- Single MTP/MPO receptacle

100G QSFP28 LR4

- Up to 100Gbps data rate
- 4 channels DFB LWDM and PIN ROSA
- Compliant with QSFP28 MSA with duplex LC receptacle
- Maximum link length of 10km on SMF

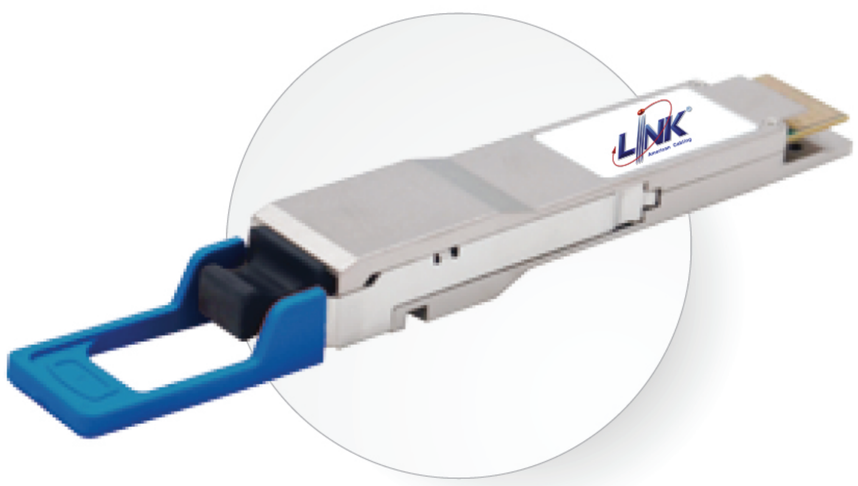
200G QSFP56 SR4

- Up to 200Gbps data rate
- Compliant with QSFP56 MSA
- 4 pairs of parallel MMF for transmission over distances up to 70m (OM3) or 100m (OM4)
- MPO12 optical interface



400G QSFP-DD SR8

- Up to 400Gbps data rate
- 8-channel 850nm VCSEL and PIN
- transmission over distances up to 70m (OM3) or 100m (OM4)
- 8 pairs of parallel MMF for transmission over distances up to 70m (OM3) or 100m (OM4)

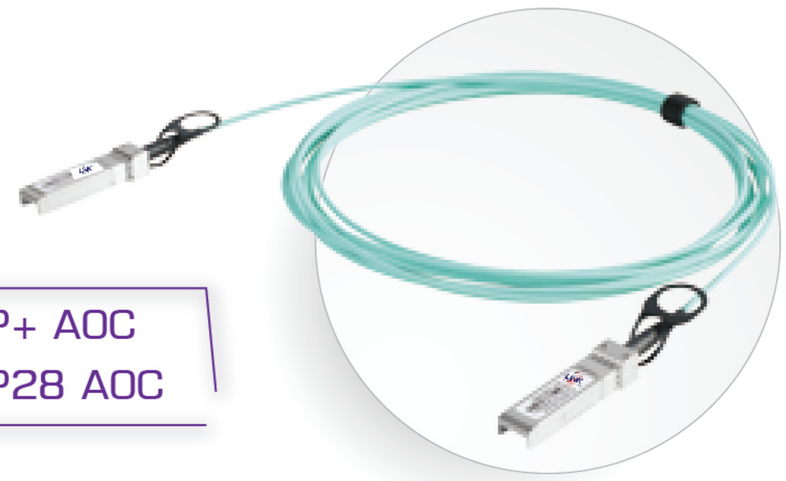


400G QSFP-DD LR4

- Up to 400Gbps data rate
- Transmitters and receivers designed with a 4-channel CWDM
- Compatible with IEEE 802.3cu 400GBASE-LR4 Ethernet
- Maximum link length of 10km on SMF
- Duplex LC receptacle

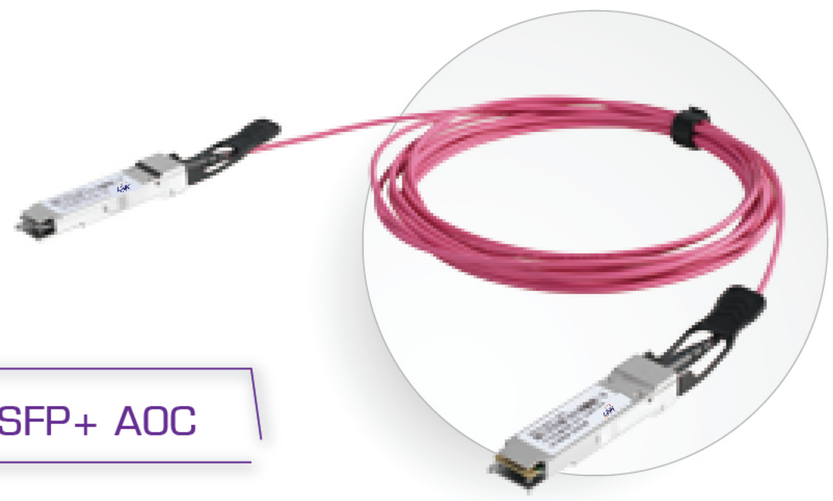
LINK OPTICAL DAC / AOC for All

10G SFP+ DAC
25G SFP28 DAC



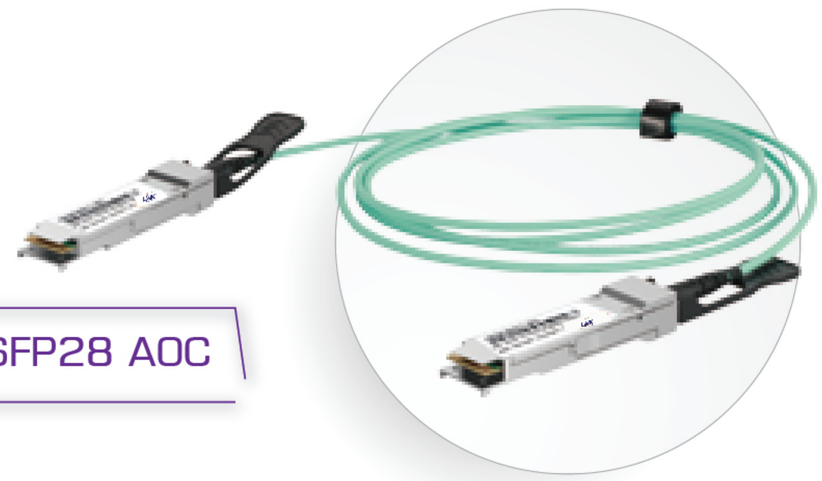
10G SFP+ AOC
25G SFP28 AOC

40G QSFP+ DAC

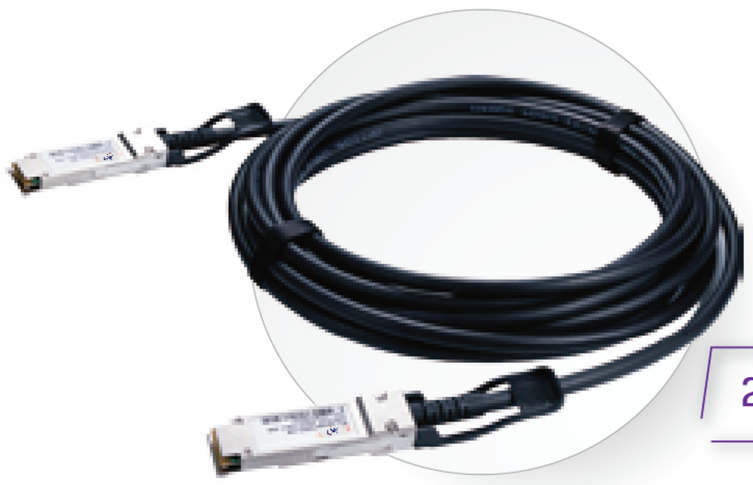


40G QSFP+ AOC

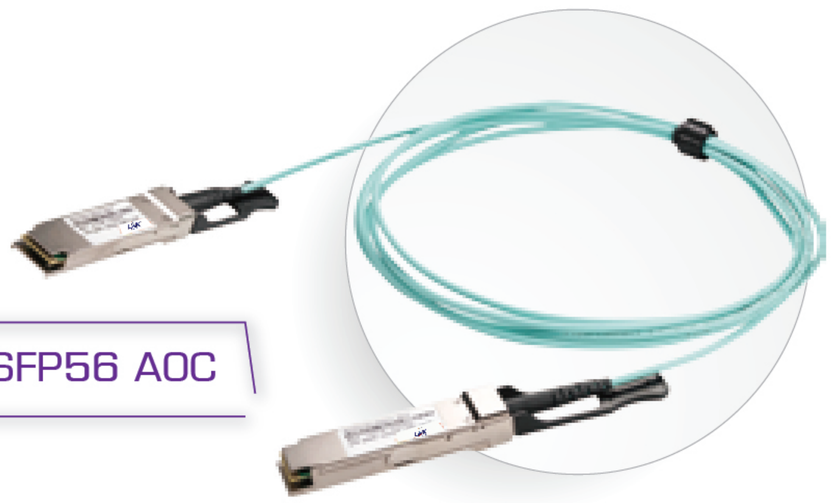
100G QSFP28 DAC



100G QSFP28 AOC

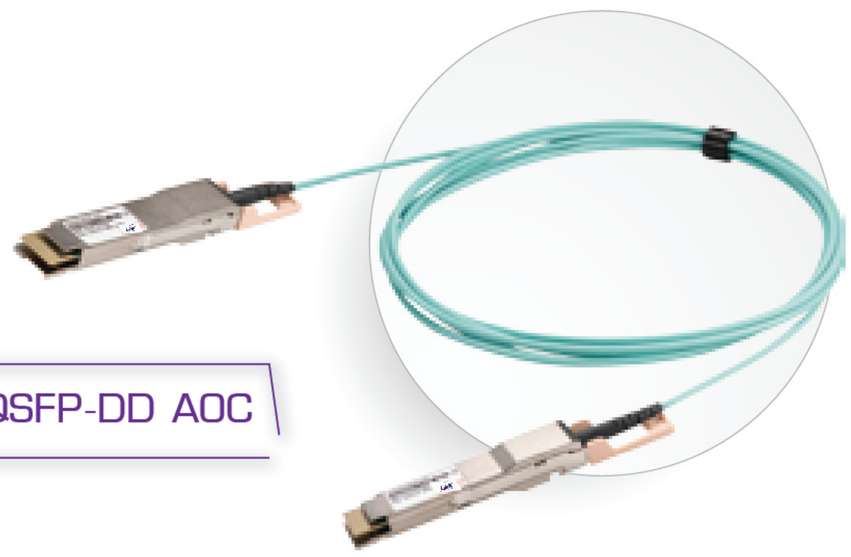


200G QSFP56 DAC



200G QSFP56 AOC

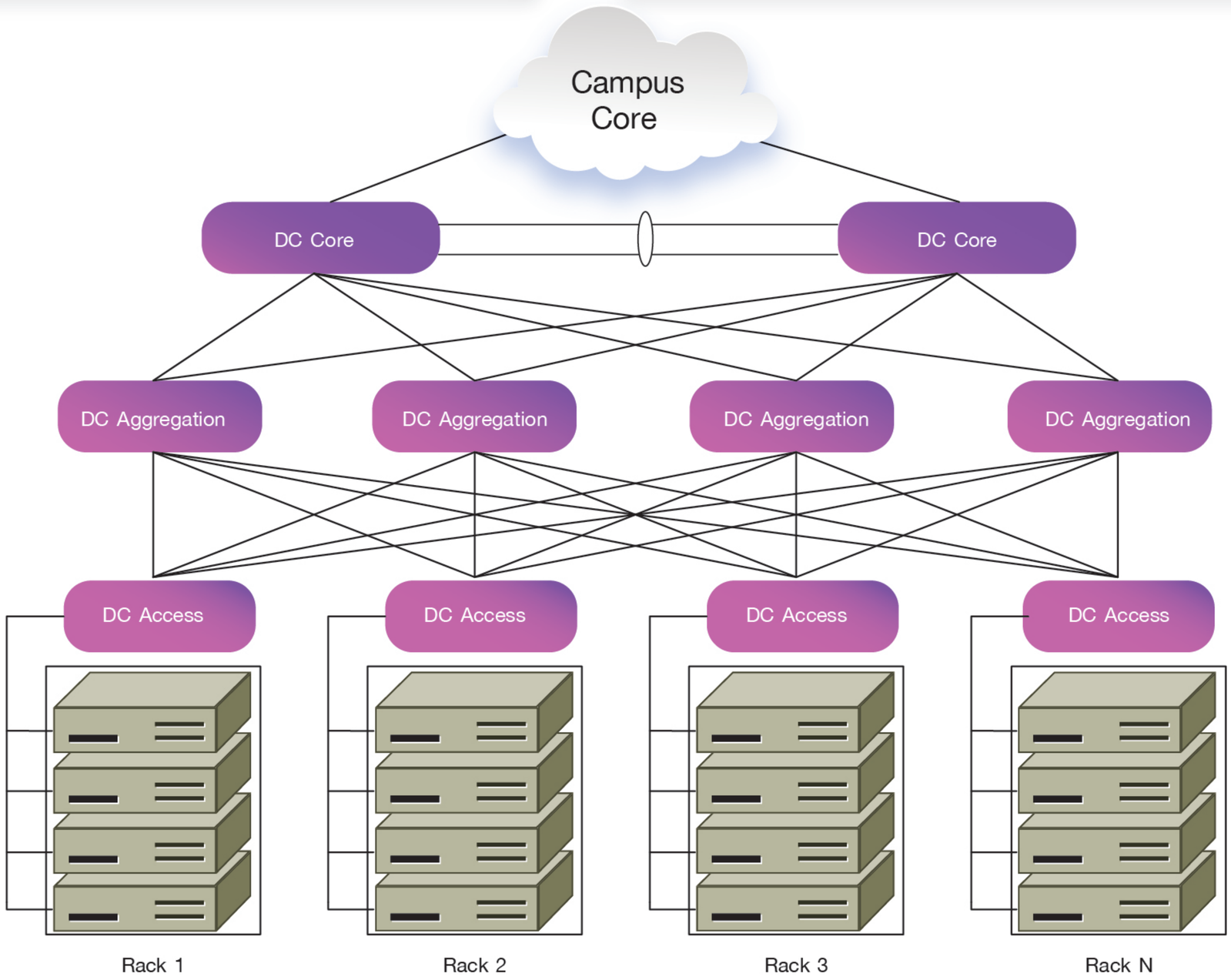
400G QSFP-DD DAC



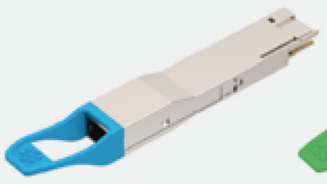
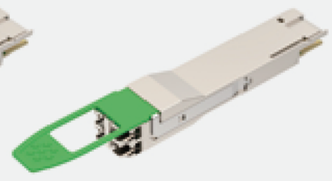
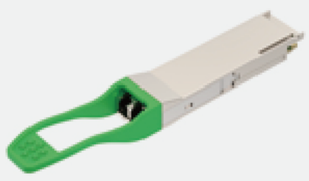
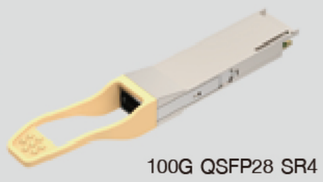
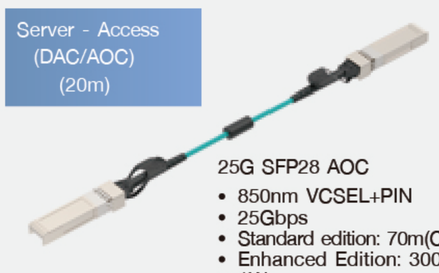
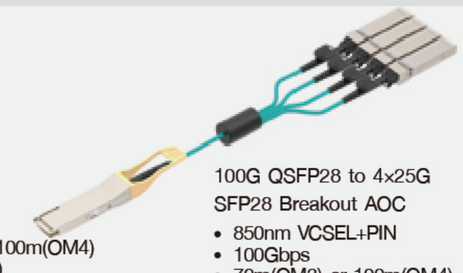
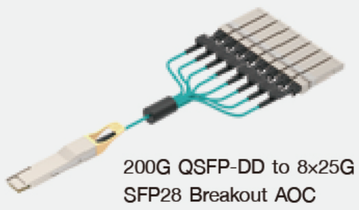
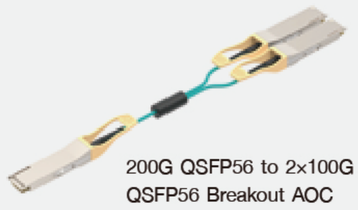
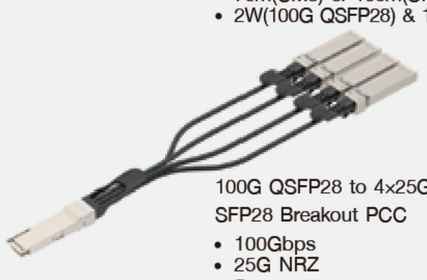
400G QSFP-DD AOC

Data Center Solution

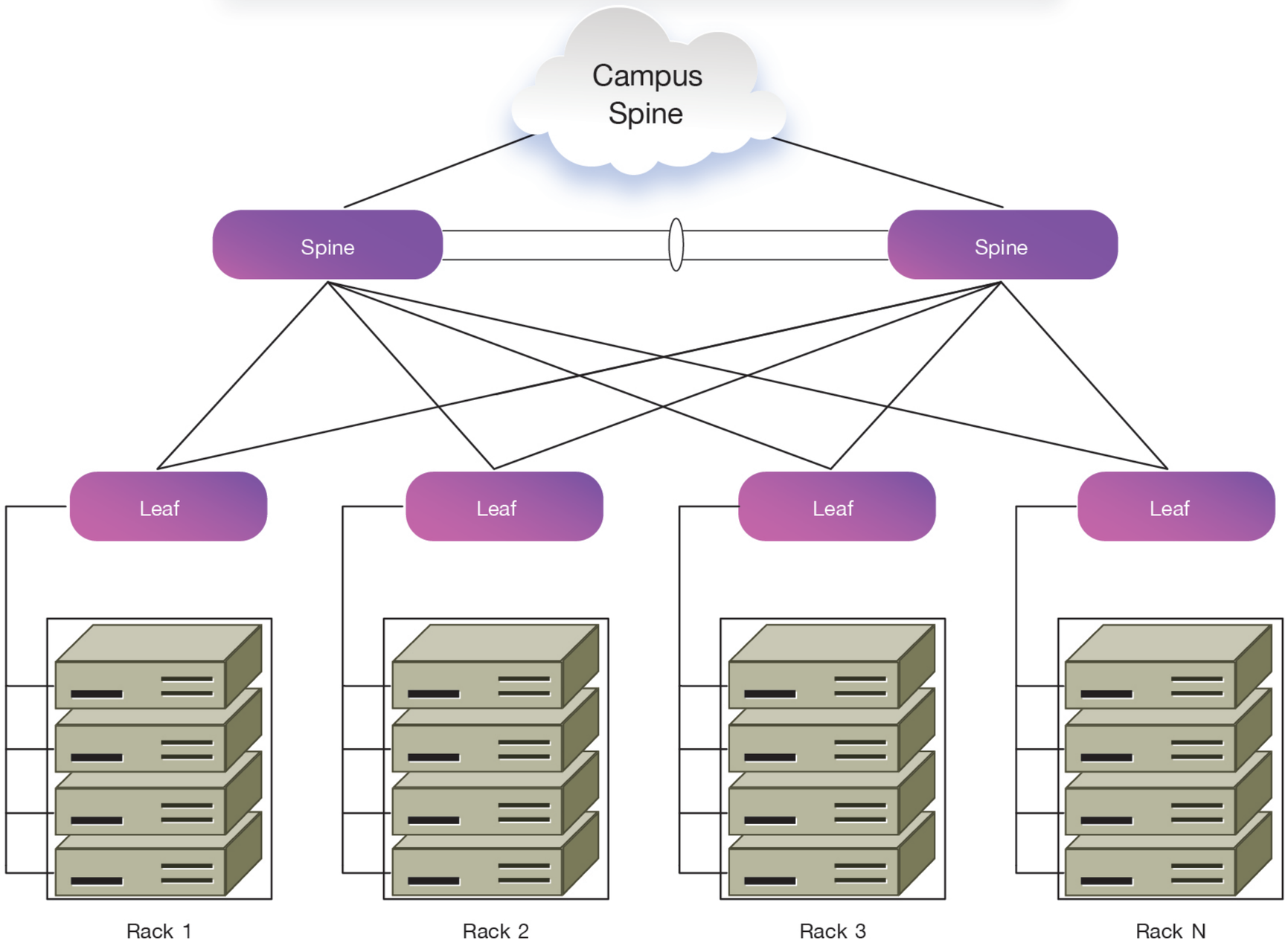
100G/200G



Traditional 3-Tier Network Architecture

100G(4×25G NRZ)	200G (8×25G NRZ)	200G (4×50G PAM4)
Core - Core (10km)		
 100G QSFP28 LR4 • LAN-WDM DFB+PIN • 100Gbps • 10km/20km • 3.5W • Dual LC	 200G QSFP-DD LR8 • 200Gbps • LWDM EML+PIN • 10km/20km • 7.5W • Dual LC	 200G QSFP56 LR4 • 200Gbps • CWDM/LWDM DML+PIN • 10km • 7.5W • Dual LC  400G QSFP-DD LR4 • 400Gbps • LWDM EML+PIN • 10km • 12W • Dual LC
Aggregation - Core (2km)		
 100G QSFP28 CWDM4 • CWDM DFB+PIN • 100Gbps • 2km/10km • 3.5W • Dual LC	 200G QSFP-DD PSM8 • 200Gbps • 1310nm DML+PIN • 2km/10km • 6W(2km) or 6.5W(10km) • MPO24  200G QSFP-DD 2xCWDM4 • 200Gbps • 2xCWDM4 DML+PIN • 2km/10km • 7W • Dual Duplex LC	 200G QSFP56 DR4 • 200Gbps • 1310nm DML+PIN • 500m • 5.5W • MPO12  200G QSFP56 FR4 • 200Gbps • CWDM DML/EML+PIN • 10km/20km • 5.5W • Dual LC
Access - Aggregation (100m)		
 100G QSFP28 SR4 • 850nm VCSEL+PIN • 100Gbps • Standard edition: 70m(OM3) or 100m(OM4) • Enhanced Edition: 300m(OM4) • 1W	 200G QSFP-DD SR8 • 850nm VCSEL+PIN • 200Gbps • 70m(OM3) or 100m(OM4) • 4W • MPO24	 200G QSFP56 SR4 • 200Gbps • 850nm VCSEL+PIN • 70m(OM3) or 100m(OM4) • 5W • MPO12
Server - Access (DAC/AOC) (20m)		
 25G SFP28 AOC • 850nm VCSEL+PIN • 25Gbps • Standard edition: 70m(OM3) or 100m(OM4) • Enhanced Edition: 300m(OM4) • 1W  100G QSFP28 to 4x25G SFP28 Breakout AOC • 850nm VCSEL+PIN • 100Gbps • 70m(OM3) or 100m(OM4) • 2W(100G QSFP28) & 1W(25G SFP28)	 200G QSFP-DD to 8x25G SFP28 Breakout AOC • 850nm VCSEL+PIN • 200Gbps & 2x100Gbps • 70m(OM3) or 100m(OM4) • 4W(200G QSFP-DD) & 1W(25G SFP28)	 200G QSFP56 to 2x100G QSFP56 Breakout AOC • 850nm VCSEL+PIN • 200Gbps & 2x100Gbps • 70m(OM3) or 100m(OM4) • 5W(200G QSF56) & 4.5W(100G QSFP56)
 25G SFP28 DAC • 25Gbps • 25G NRZ • 5m  100G QSFP28 to 4x25G SFP28 Breakout PCC • 100Gbps • 25G NRZ • 5m	 200G QSFP-DD to 8x25G SFP28 Breakout PCC • 200Gbps • 8x25G NRZ • 3m	 200G QSFP56 to 2x100G QSFP56 Breakout PCC • 200Gbps & 2x100Gbps • 4x50G PAM4 • 5m

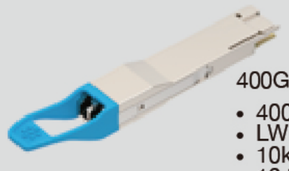
Data Center Solution 400G



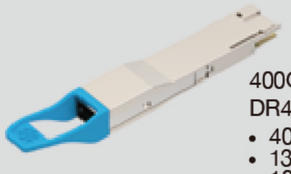
Two-Tier Data Center Network Architecture

400G QSFP-DD

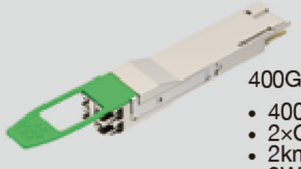
Spine - Spine (10km)



400G QSFP-DD LR8
- 400Gbps
- LWDM EML+PIN
- 10km/20km
- 12.5W
- MPO24/MPO16



400G QSFP-DD DR4++(SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 10km
- 10.5W
- MPO12

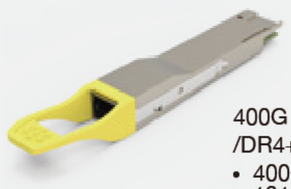


400G QSFP-DD 2xFR4
- 400Gbps
- 2×CWDM4 DML+PIN
- 2km
- 9W
- Dual Duplex LC

400G QSFP-DD LR4(EML)
- 400Gbps
- LWDM EML+PIN
- 10km
- 11W
- Dual LC

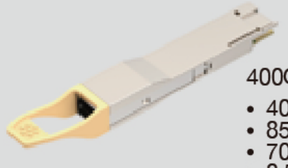
Leaf - Spine (2km)

400G QSFP-DD PSM8
- 400Gbps
- 1310nm EML+PIN
- 2km/10km
- 11W
- MPO24/MPO16

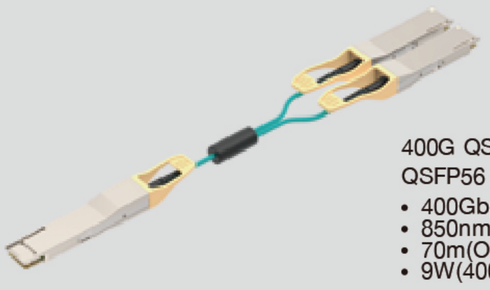


400G QSFP-DD DR4 /DR4+(SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 500m/2km
- 10W
- MPO12

Server - Leaf (100m)



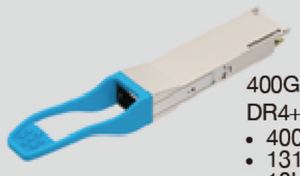
400G QSFP-DD SR8
- 400Gbps
- 850nm VCSEL+PIN
- 70m(OM3) or 100m(OM4)
- 8.5W
- MPO16



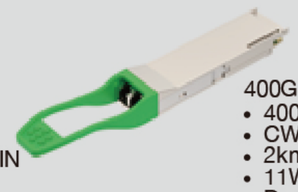
400G QSFP-DD to 2×200G QSFP56 Breakout AOC
- 400Gbps & 2×200Gbps
- 850nm VCSEL+PIN
- 70m(OM3) or 100m(OM4)
- 9W(400G QSFP-DD) or 5W(200G QSFP56)

400G QSFP-DD to 2×200G QSFP56 Breakout PCC
- 400Gbps & 2×200Gbps
- 8×50G PAM4
- 3m

400G QSFP112(4X100G PAM4)



400G QSFP112 DR4++(SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 10km
- 10.5W
- MPO12

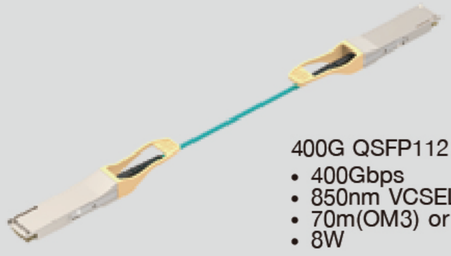


400G QSFP112 FR4
- 400Gbps
- CWDM4 EML
- 2km
- 11W
- Dual LC

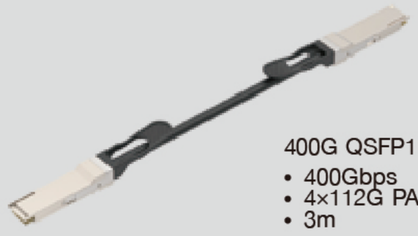
400G QSFP112 LR4
- 400Gbps
- CWDM4 EML
- 10km
- 11W
- Dual LC

400G QSFP112 DR4/DR+(SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 500m/2km
- 10W
- MPO12

400G QSFP112 SR4
- 400Gbps
- 850nm VCSEL+PIN
- 70m(OM3) or 100m(OM4)
- 8W
- MPO12

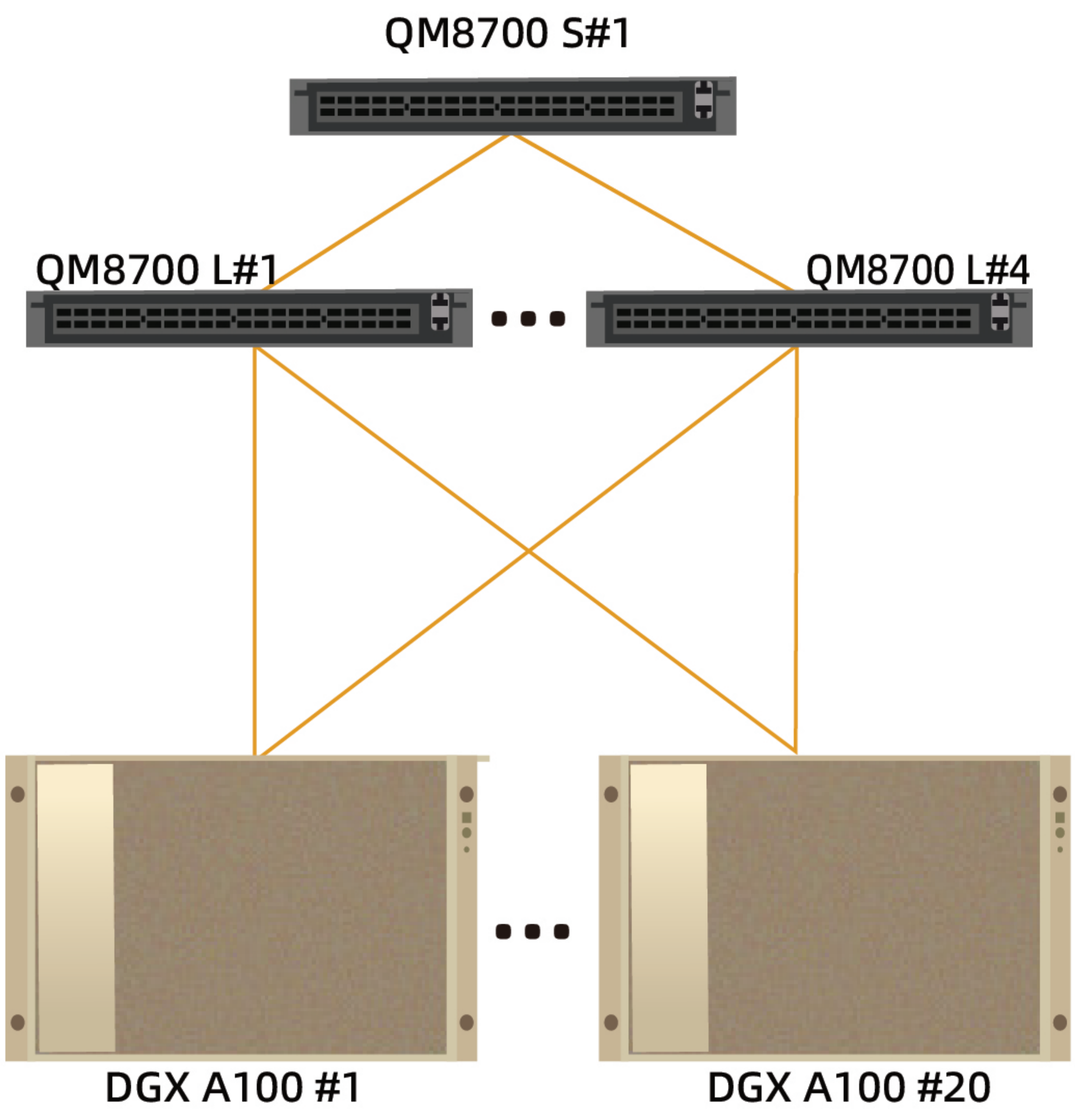


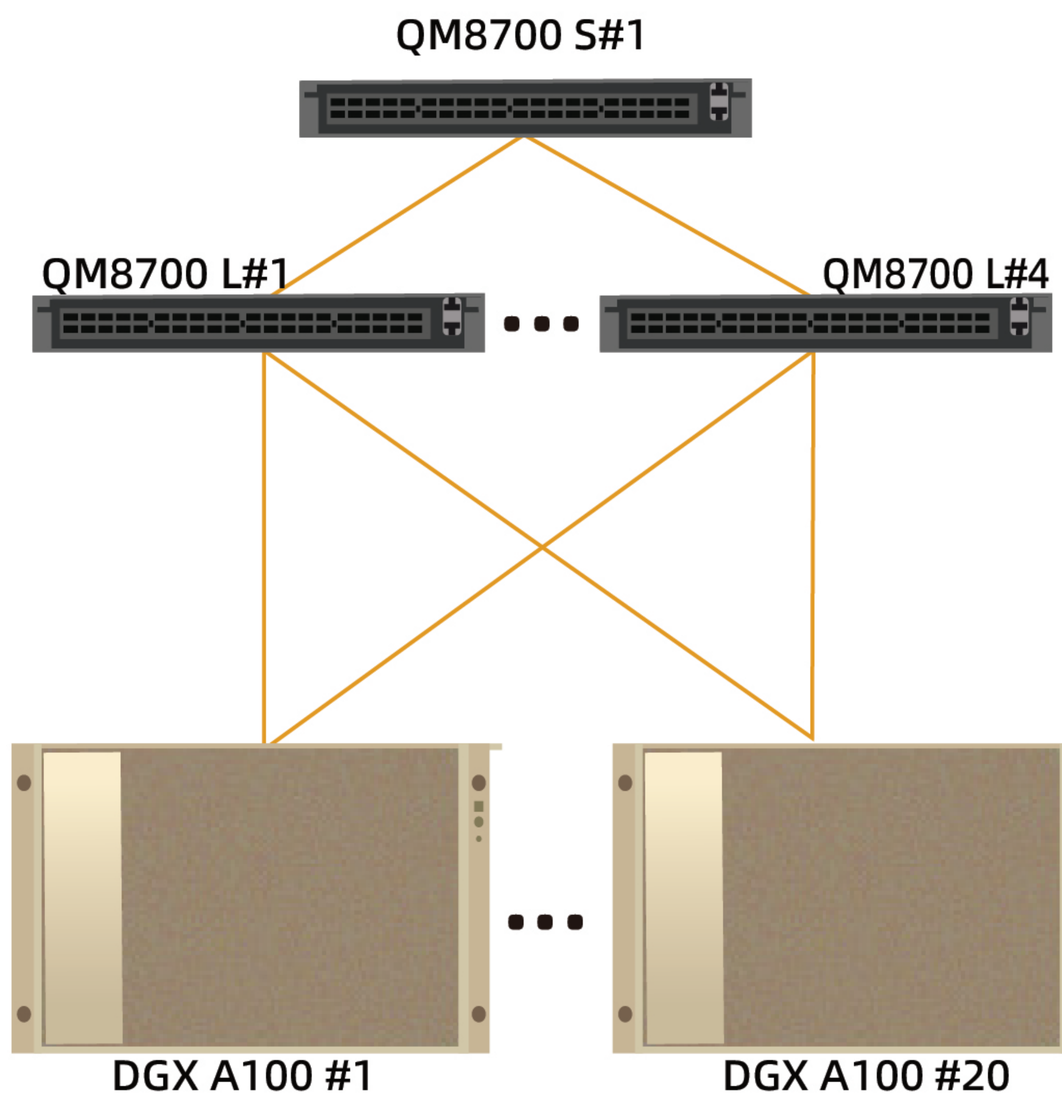
400G QSFP112 AOC
- 400Gbps
- 850nm VCSEL+PIN
- 70m(OM3) or 100m(OM4)
- 8W



400G QSFP112 DAC
- 400Gbps
- 4×112G PAM4
- 3m

800G AI Data Center Solution



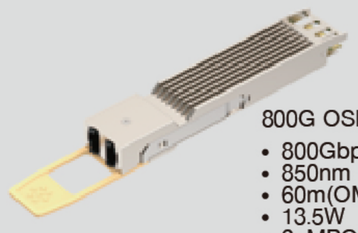


<5m

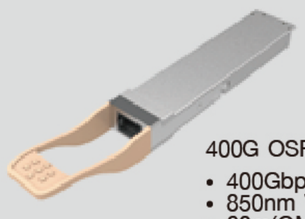
800G OSFP to 2×400G QSFP112 DAC
- 800Gbps & 2×400Gbps
- 8×100G PAM4
- 2m

800G OSFP to 2×400G OSFP-RHS DAC
- 800Gbps & 2×400Gbps
- 8×100G PAM4
- 2m

<100m



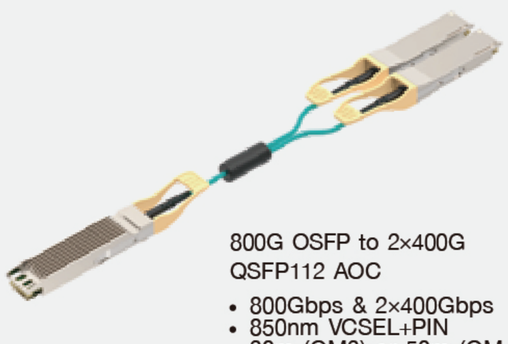
800G OSFP SR8
- 800Gbps
- 850nm VCSEL+PIN
- 60m(OM3) or 100m(OM4)
- 13.5W
- 2×MPO12



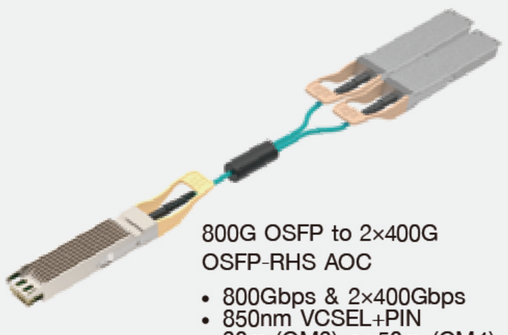
400G OSFP-RHS SR4
- 400Gbps
- 850nm VCSEL+PIN
- 60m(OM3) or 100m(OM4)
- 8W
- MPO12

400G QSFP112 SR4
- 400Gbps
- 850nm VCSEL+PIN
- 60m(OM3) or 100m(OM4)
- 8W
- MPO12

<50m

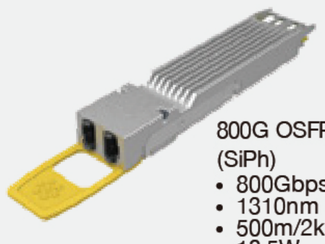


800G OSFP to 2×400G QSFP112 AOC
- 800Gbps & 2×400Gbps
- 850nm VCSEL+PIN
- 30m (OM3) or 50m (OM4)

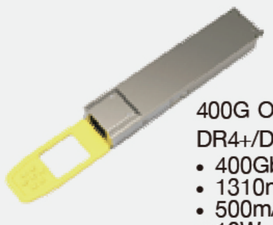


800G OSFP to 2×400G OSFP-RHS AOC
- 800Gbps & 2×400Gbps
- 850nm VCSEL+PIN
- 30m (OM3) or 50m (OM4)

>500m



800G OSFP DR8/DR8+/DR8++ (SiPh)
- 800Gbps
- 1310nm CW+MZ+PIN
- 500m/2km/10km
- 18.5W
- 2×MPO12



400G OSFP-RHS DR4/ DR4+/DR4++ (SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 500m/2km/10km
- 10W
- MPO12

400G QSFP112 DR4/ DR4+/DR4++(SiPh)
- 400Gbps
- 1310nm CW+MZ+PIN
- 500m/2km/10km
- 10W
- MPO12

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